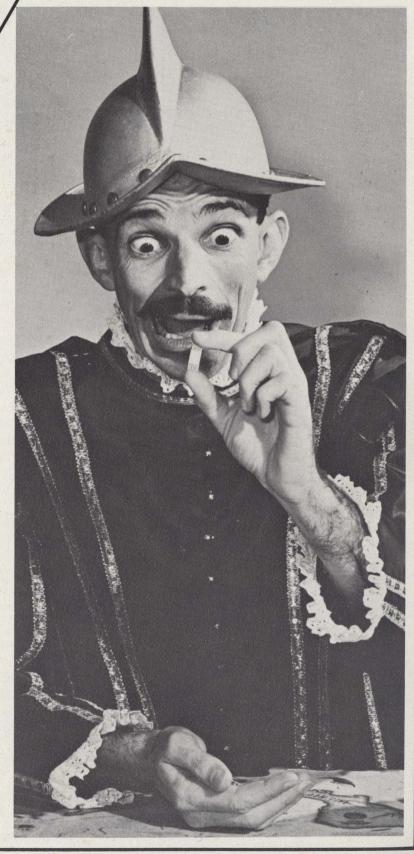


MANAL

"He who searches the
Treasured depths for
The little things...
Sees the bigger picture."
author unknown



September 1967 / Volume 13, Number 1

August by the Canaveral Section, Institute of Electrical and Electronics Engineers

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— Cover: Sebastian is in Reality — Peter Roberts of Radiation Inc. who seems perplexed at the micro circuit

MESSAGE FROM

The IEEE is a good organization because it allows us to participate in so many ways. You can just pay the dues, get a few publications and never bother going to any meetings; you can go to one meeting each year and say to yourself "I am an active IEEE Member because I go to Section Meetings": You can go to several functions, learn a lot about technological and industry trends and meet the people who set the pace in our business; you can come to meetings, become an active member of a committee and help your Section decide and render its service and really get a lot out of your membership or, you can let your IEEE Membership lapse and still come to a meeting or two and read Spectrum or Proceedings in your Library. WE ARE GLAD TO HAVE ALL OF YOU! Remember the purpose of the Organization! DISSEMENATION OF TECHNO-LOGICAL INFORMATION AND

(Cont'd, Back cover)

COMTECH SESSION

ARNFINN MOE MANDERS

DIGITAL



ARTIFICIAL INTELLIGENCE

A talk to be given before the Canaveral Chapter of the IEEE Professional Group on Communication Technology by Arnfinn Moe Manders, Associate Professor of the University of Florida at Ramon's on the Causeway on September 25, at 8:00 P.M.

Digital computers are becoming progressively more flexible and accessible. Time sharing systems with remote terminals are becoming part of the engineer's office equipment. Any system that can be described mathematically can now be "built" and tested on a digital computer. In many cases the final design may be a computer program rather than a piece of hardware. This is particularly true when the system is to be used only for a relatively short time.

This talk will discuss time sharing systems and digital simulation. It will also survey some of the problems encountered in man-machine interaction and self organizing systems. These latter systems are particularly interesting since they can learn from experience in much the same way as a child learns to solve problems. This leads on to machines that understand and give answers to questions in plain English rather than some computer language.

ARNFINN MOE MANDERS

Born in Oslo, Norway in 1932, ARNFINN MOE MANDERS came to the United States in 1955 after completing his studies at Schous Institute of Technology in Oslo. In 1957 he received the BS and MS degrees in Electrical Engineering from Michigan Technological University and in 1963 the PhD in

FUTURE

The Canaveral COMTECH Chapter has already made arrangements for meetings for the present year. Meeting schedule and speakers are as follows: 22 Nov. 1967 Walt Fredrickson,

PROGRAMS

COMTECH

Radiation Incorporated. His topic will be "DIGITAL COMMUNICATIONS"

20 Jan. 1968 Mr. Don Worthing ton of DCA will discuss "ADVANCES IN STRATEGIC COMMUNICATIONS."

We are considering a joint meeting with the Section or the AES Group for the 4th meeting in March. At the May meeting we will have a program so that wives may be invited.

Electrical Engineering from the Poly-

Western Electric, IBM Research, and

ITT. He has served as instructor at PBI

and Assistant Professor at MIT. Since

1964 he has been employed by the

University of Florida, where he is an

Associate Professor of Electrical En-

aineering. He is currently conducting

research in signalling over fading chan-

nels, and computer systems simulation.

Dr. Manders has been employed by

technic Institute of Brooklyn.

Kohn Kolarcik, Vice-Chairman of the Chapter, has resigned, since he will be transferred to an RCA activity at West Palm Beach, Florida. Larry Lerner has accepted chairmanship of a committee consisting of Harry McElveen and C. F. Merrigan, to make recommendations to the Chapter Administrative Committee for replacement.

"DRAGON" THE

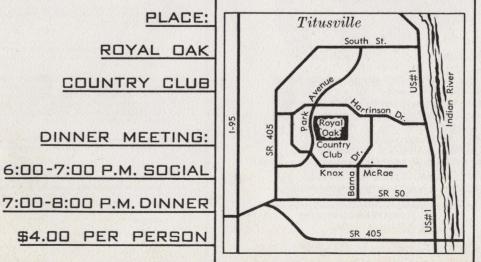
WEAPON SYSTEM PROGRAM

SEPT. 20 SECTION MEETING

SPEAKER: R. W. LOWE

Program Manager, McDonnell Astronautics Company

Mr. Lowe will speak on the Dragon Weapon System program, which is currently in the Engineering Development Phase at the Ti-Co Plant of the McDonnell Astronautics Company. He will trace the history and background of the Army's Medium Anti-Tank/Assault Weapon requirement, and describe the developmental approach to satisfy this requirement. The capability of defeating hostile armor threats with a truly one-man-portable, simple-to-operate, highly-accurate, devastatingly-effective, low-cost infantry weapon makes this system a uniquely interesting subject for discussion. Mr. Lowe will also cover the lessons of experience in spacecraft and missile system developments and operations at Cape Kennedy. The talk will be supplemented by slides and motion pictures of these developments and flight operations. Mr. Lowe will also cover the McDonnell spacecraft and missile systems operation at Cape Kennedy and describe the progress made to date in establishing the facility of the Florida division.



R. W. LOWE

Program Manager,

McDonnell Astronautics Company

Mr. Lowe joined McDonnell in 1947 as layout design engineer on F2H-1 aircraft, progressed through responsible supervisory positions in production design and advanced designs of the Aircraft Division up to Assistant Project Engineer on the F-101 aircraft.

In 1958, he was assigned as Engineering Manager of the SAM-72 decoy missile responsible for engineering activities in connection with complete design, development and production of that missile system.

In 1963, he was appointed Company-wide Project Manager of the ASSET Research Vehicle Project responsible for all phases of that program.

In 1964, he was assigned as Company-wide Project Manager of the MAW Anti-tank missile Exploratory Development Project in addition to ASSET

In 1966, he moved to Florida with key members of the XM-47 missile project to assist in activation of the McDonnell Florida Division.

Mr. Lowe has a BS in Mechanical Engineering from the University of Oklahoma, '47, and an MS in Engineering Administration from Washington University at St. Louis, '56.

He is a member of the Sigma Tau and Tau Omega honorary engineering fraternities.

STUDENT CHAPTER NEWS

The I.E.E.E. Student Chapter at Florida Institute of Technology is planning an extensive membership drive by means of an I.E.E.E. Week to be held during the second week of the Fall term, the second to the seventh of October, 1967. The week will also feature an I.E.E.E. presentation in the newly completed Campus auditorium and a dinner at the end of the week.

A full program is planned for the coming school year. It will include possible tours to the Jet Propulsion Laboratories, The Martin Company and the Saturn V Launch Complex. There will also be available participation in contests for technical papers.

MEMBERSHIP ACTIVITY

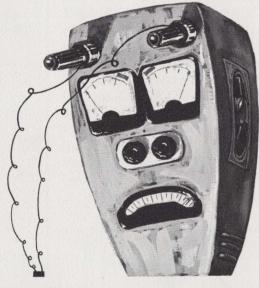
Primarily due to the increase in membership costs in 1967 the section dropped from an enrollment of nearly 1,000 into the mid 800's. However, many of those dropouts have reconsidered and updated their memberships. This coupled with the influx of new and transferred members has our section rapidly moving back toward the 1,000 mark. Over 900 questionnaire cards were mailed to the membership during July. The response has been excellent and we now have lists available by company affiliation and business phone. We owe a vote of thanks to the CCTS (Virginia Hawk) for assistance in the stamping and mailing. We were also happily surprised by the number of responses which undoubtedly will be contacted as soon as these lists are made available to the committee chairman.

To promote the relationship of old acquaintances a list of new members and incoming transfers to our section during June and July are shown below. Let's make every effort to welcome them and solicit their interest and participation in the section activities.

NEW MEMBERS AND TRANSFERS:

R. J. Adams; J. Ambruosi; J. T. Bendick; L. W. Bowden; L. N. Bowers; D. R. Bradford; B. Cater; E. J. Cavolaski; D. M. Chamberlain; G. B. Daughton; E. W. Doub, Jr.; J. C. Driscoll; C. R. Dufour; O. F. Dumas; I. D. Duncan; R. E. Enstice; J. S. Ferguson; J. K. Foster; J. E. Griffin; W. M. Gulledge; P. R. Hardaker; J. E. Herrara; R. F. Hill; J. F. Horne; E. S. Karalis; G. Kiehn; D. L. Kingsbury; W. J. Kranzfelder; Q. C. Laprad; A. W. Long; R. J. Mackin; W. H. Merrin; W. A. Mitchen; C. Molitor; D. M. Myer; H. Moford; M. M. NeKoui; P. J. Novak; D. P. O'Connor; D. J. Patton; J. S. Philpott; N. L. Piercy; S. G. Powers; R. C. Randolph; D. W. Rardon; G. G. Rassweiler; W. H. Reading; J. D. Ridings; R. Reiber; J. L. Rivard; W. C. Robinson; A. R. Roble; H. H. Schiller; B. J. Sparacino; E. L. Steiner; M. F. Whittater; S. C. Williams; J. T. Woods, Jr.; N. B. Worden; M. Yanez, Jr.; M. P. Zeitfuss,

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CALENDAR

Canaveral Section Meeting

20: "The 'Dragon' Weapon System Program"; Speaker: R. W. Lowe, Program Manager, McDonnell Astronautics Co.; Place: Royal Oak Country Club, Titusville; Social 6-7 pm, Dinner 7-8 pm, \$4.00 per person.

Canaveral COMTECH Chapter
7. 22: "Digital Communications"; Speaker:
Walt Frederickson, Radiation Incorporated;
Time and Place: TBA*. NOV. 22:

Canaveral COMTECH Chapter 7. 25: "Pattern Recognition"; Speaker: Dr. A. M. Manders, University of Florida; Time and Place: TBA*. Canaveral COMTECH Chapter
JAN. 20, 1968: "Advances in Strategic Communications"; Speaker! Mr. Don Worthington of DCA; Time and Place: TBA*.

NATIONAL & INTERNATIONAL

SEPT. 5-8: Solid State Devices Conference; Location: Univ. of Manchester Institute of Science & Technology, Manchester, England; Sponsors: U. K. & Rep. of Ireland Section Inst. of Physics & Physics Soc., IEE, IERE; Information: I. M. Mackintosh, Elliot-Automation Microelectronics Ltd., Queensway In-dustrial Estate, Glenroths, Fife, Scotland DL 6/9/67 (Abst.)

SEPT. 26-28: Conference on Magnetic Materials F. 26-28: Conference on Magnetic Materials and Their Applications; Location: London, England; Sponsors: U.K. & Rep. of Ireland Section Inst. of Physics & Physical Soc., IEE; Information: R. G. Cox, IEE, 2 Savoy PI., London, W.C. 2, England DL 12/30/66.

SEPT. 6-8: Computer Conference; Location: Edgewater Beach Hotel, Chicago, Illinois; Sponsors: G-C; Information: S. S. Yau, North-western Univ., Dept. of E.E., Evanston, Illi-nois 60201 DL 4/10/67 (Abst. & Syn.)

OCT. 2-4: Petroleum Industry Technical Conference; Location: Marriott Motor Hotel, Phila., Penna.; Sponsors: G-IGA; Informa-tion: N. T. Brinkman, Atlantic Richfield Co., 3144 Passyunk Ave., Phila., Penna. 19145.

SEPT. 11-15: Int'l Symp. on Information Theory; Location: Kings Palace Hotel, Athens, Greece; Sponsors: G-IT; Information: DL 5/1/67 (Ms.)

OCT. 2-5: IGA Group Annual Meeting: Location: Pittsburgh Hilton Hotel, Pittsburgh, Penna.; Sponsors: G-IGA, Pittsburgh Section; Information: F. W. Gutzwiller, Gen'l Elec. Co., Auburn, N.Y. 13201 DL 3/1/67 (Digest).

SEPT. 13-14: Biennel Electric Heating Technical Conference; Location: Statler Hilton Hotel, Detroit, Michigan; Sponsors: G-IGA; Informa-tion: J. R. Wark, Indianapolis Power & Light Co., 25 Monument Cir., Box 1595, Indianap-olis, Indiana 46206 DL 12/29/66 (Abst.)

OCT. 4-6: Allerton Conference on Circuit & System Theory; Location: Allerton House, Monti-cello, III.; Sponsors: G-CT, Univ. of Illinois; Information: J. B. Cruz, Jr., Dept. of E.E., Univ. of III. Urbana, III. 61801 DL 8/1/67

SEPT. 21-22: Automotive Conference; Location: Howard Johnson New Center Motor Lodge, Detroit, Michigan; Sponsors: G-V, S.E. Mich. Sect.; Information: W. N. Lawrence, Dept. of E.E., Univ. of Mich., Ann Arbor, Michigan

OCT. 4-6: Ultrasonics Symposium; Location: Bayshore Inn, Vancouver, B.C. Canada; Sponsors: G-SU; Information: Burt Auld, Hanson Labs., Stanford Univ., Stanford, Cal. 94305 DL 8/1/67 (Papers).

SEPT. 21-23: Broadcast Symposium; Location: Mayflower Hotel, Washington, D.C. Spon-sors: G-B;

OCT. 9-10: Joint Engineering Management Conference; Location: Jack Tar Hotel, San Francisco, California; Sponsors: IEEE, 7 other Societies; Information: B. B. Winer, Westinghouse Elec. Corp., E. Pittsburgh, Penna. DL

SEPT. 24-28: Joint Power Generation Conference; Location: Statler Hilton Hotel, Detroit, Michigan; Sponsors: G-P, ASME et al; Information: Henry Wallace, Jr., 110 S. Orange, Livingston, N.J. DL 6/23/67 (Ms.)

OCT. 9-11: Machine Tools Technical Conference; Location: Sheraton-Cleveland Hotel, Cleve-land, Ohio; Sponsors: G-IGA, Cleveland Sec-tion; Information: Roger Larson, Gen'I Elec. Co., 1020 Lakeside, Cleveland, Ohio.

SEPT. 25-27: Int'l Elec. Conference & Exposition of the Canadian Region; Location: Westbury Hotel, Automotive Bldg. in Exhibition Park, Toronto, Ont., Can., Sponsors: Canadian Region, Toronto Section; Information: R. G. deBuda, 1819 Yonge St., Toronto, Ontario, Canadia

OCT. 11-13: Systems Science & Cybernetics Conference; Location: Statler Hilton Hotel, Boston, Mass.; Sponsors: G-SSC; Information: David Smith, Moore School of E.E., Univ. of Penna., 33 Walnut St., Phila., Penna.

ELECTROMAGNETIC COMPATABILITY (EMC) GROUP

The electromagnetic compatibility (emc) group, is an organization, within the framework of the IEEE, of members with principle professional interest in EMC. Group members are primarily interested in the source, measurement, and suppression of electromagnetic interference, both man made and natural.

The G-EMC publishes transactions on subjects which may benefit the technical community. These transactions plus a national G-EMC newsletter are sent to all G-EMC members in addition to regular IEEE publications.

The g-emc holds annually a national symposium and several regional symposiums for its members and other interested IEEE members.

The Canaveral Chapter of G-EMC serves the EMC community in the central Florida area. The officers for the present year are held by: Mr. H. D. McKay, Chairman and Mr. Dave Montgomery, Vice-Chairman. The group has scheduled two meetings for the fall. On Monday, September 25, 1967, the Chapter will have a dinner meeting and on Monday, November 27, 1967, the Chapter will hold a luncheon meeting. The speakers and meeting locations have not vet been announced. In general, the Chapter holds meetings on the third Monday, bi-monthly. For additional information, call Dean McKay, 723-2341.

CANAVERAL-DAYTONA

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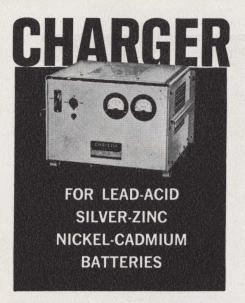
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ON IMPULSE ? BILL ASHMAN EXECUTIVE EDITOR

Most of our readers have experienced major changes in their lifetime and become accustomed to them. We, in the engineering profession accept it as a way of life. No longer is an employee who changes position looked upon as a transient. All of us have a good reason for making personal and non-personal changes. For the most part it signifies a desire to move ahead in life and upgrade our position. You were probably wondering how a new publication managed to make its way into an already crowded library. Impulse as a publication is not new. We have made a change. Our intent and purpose in this change is to better our position. We hope our new format will be widely read as it replaces its predecessor, the Indian River Engineer. This change is not being taken lightly. We feel that the former editor, Mrs. Betty Preece and business manager, Robert Fillingham, have done an admirable job in the past. Our task of duplicating this performance will be difficult indeed.

We, of the Impulse staff, request your help in making this publication one of the best of section publications. We need your input for news and happenings, also your opinions. Most of all, we need assistance in enlarging our staff.

If you would like a challenging, time consuming, non-paying job, we would like to hear from you. The main satisfaction you receive is once a month seeing the best publication available go into the mails and knowing you had a part in it.

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CHAIRMAN (cont'd)

ENCOURAGEMENT OF FELLOW-SHIP AMONGST ITS MEMBERS. The opportunity to meet leaders of our industry and the chance to get acquainted with people can do a lot to stimulate fresh ideas for your project at work or general professional growth.

PLANS FOR THE YEAR

Your Executive Committee has been working hard all summer to serve you well during the year. I am honored by having so many distinguished leaders of our profession as active members of the Committee. We are most fortunate to have William Ashman as our first Publications Chairman. Recently having joined Radiation Inc. on the Public Relations Staff, Mr. Ashman was for many years Managing Editor of the Microwave Journal.

Mr. Harold L. Flowers, your Program Chairman, is a Fellow of the IEEE, Chief Engineer of McDonnell Astronautics in Titusville and a former Section Chairman of Akron, Ohio.

This year, we will inaugurate an active Industry Coordination Committee

and Donald R. Hill, Manager of Technical Operations, RCA will be the Chairman. The objective of this committee will be to appoint an active IEEE Representative within each appropriate organization to serve as the IEEE focal point for membership information, meeting notices, gathering of membership news and any other IEEE business.

Dr. Harry Weber, Head of the FIT Electrical Engineering Department is eminently qualified to take charge of Student Activities. The Section plans to take a more active interest in students this year by having a joint meeting and recognizing students at our Section meetings throughout the year.

We are fortunate in having the enthusiastic support of A. H. Pollock, Manager at General Electric as our Membership Chairman.

THROUGH HIS EFFORTS, WE NOW HAVE 40% OF ALL SECTION MEMBERS IDENTIFIED BY ORGANIZATION AND TELEPHONE.

Public Relations is an important part of our organization. We must make the

public aware of what we do, the objectives of our work and who the active members are that make things happen. Public acceptance of the IEEE will substantially increase membership, attendance and active participation by more members in addition to the inherent public service. Stanley A. Weinroth of Lockheed (where he also is President of his Management Club) will again serve as Publicity Chairman.

Harry McElveen, Supervising Engineer in Cocoa is the new Arrangements Chairman, succeeding George Johnson who did an excellent job last year.

The Section now has 5 Group Chapters, Aerospace and Electronic Systems, Communication Technology, Power, Electromagnetic Compatability and Reliability. I urge you to give these chapters your active support and if enough members desire to form other chapters in different technical areas, just let us know and we will give you all help you need to get started.

RESOLVE NOW TO ATTEND AT LEAST ONE MEETING THIS YEAR.

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